

Appl. No. 09/517,127

Amended Response to Office Action mailed 08/24/2008

REMARKS

Applicants appreciate the recognition of allowable subject matter in the present application.

Applicants hereby cancel claims 12, 144 and 176. Accordingly, claims 1-5, 10-11, 13-20, 22-28, 31-33, 39, 41-65, 67, 130-131, 133-135, 138-143, and 152-175, 177-181 are pending in the present application.

Claims 31 and 143 are objected to. Claims 1-3, 10-11, 15-17, 49-51, 53-60, 62, 139-140, 144, 152-153, 157-162, 173-174 and 176 stand provisionally rejected under 35 U.S.C. 101. Claims 140 and 160-162 stand rejected under 35 U.S.C. 102(b) for anticipation by U.S. Patent No. 5,755,614 to Adams et al. Claims 1, 15, 17, 49, 63-64, 138, 141-142, 154-156 and 172 stand rejected under 35 U.S.C. 102(e) for anticipation by U.S. Patent No. 6,048,256 to Obeng et al. Claims 1, 10-11, 15, 17, 27-28, 31, 33, 49-51, 53-61, 63-65, 67, 138-139, 141, 143-144, 152-153, 157-159, 168-171, 173, 175-176 and 178 stand rejected under 35 U.S.C. 103(a) for obviousness over Adams in view of Obeng. Claims 2-4, 16, 18-20, 22-26, 32, 130 and 163 stand rejected under 35 U.S.C. 103(a) for obviousness over Adams and Obeng in further view of U.S. Patent No. 3,713,743 to Simms.

Applicants respectfully request reconsideration of the rejections and objections.

Applicants respectfully request reconsideration of the 101 double patenting rejections. In particular, Applicants respectfully refer to MPEP §804 IIA (8th ed. rev. 5) states that a reliable test for double patenting under 35 U.S.C. §101 is whether a claim in the application could be literally infringed without literally infringing a corresponding claim in the patent. *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970). Further, such MPEP

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section provides that if there is an embodiment which falls within the scope of one claim but not the other than identical subject matter is not defined by both claims and statutory double patenting does not exist. Applicants have canceled claim 144 and the dependent claims thereof in this application. Applicants respectfully submit the none of the currently pending claims of the respective applications have been demonstrated to meet the above criteria specifying when 101 double patenting is appropriate. Applicants respectfully request specific identification of the claims of one of the applications, and the respective claims of the other of the applications which are believed to claim the same inventions so Applicants may appropriately respond.

Referring to independent claim 1, the system includes limitations of claim 12 and claim 1 is believed to be allowable in view of the indication in the Office Action that claim 12 is allowable.

The claims which depend from independent claim 12 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to independent claim 18, the Office has indicated in the mailing of May 2, 2007 that Official Notice was not relied upon in formulating the prior art rejection of claims over Adams, Obeng and Simms set forth on page 9 of the Action. Accordingly, Applicants have deleted herein the portions of the response filed January 24, 2007 which traversed the taking of Official Notice.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the

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reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See, e.g., MPEP §2143 (8th ed., rev. 5).

For a proper 103 rejection, the examiner must establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPO2d 1596, 1598 (Fed. Cir. 1988). Reasons for the decision to combine references must be articulated. In re Lee, 277 F.3d 1338, 1342, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002). The examiner must show that there is a teaching, motivation, or suggestion of a motivation to combine references relied on as evidence of obviousness. Id. 277 F.3d at 1343, 61 USPQ2d at 1433-34. It is insufficient to rely on the examiner's own understanding or experience, or the Examiner's assessment of what would be basic knowledge or common sense but rather must point to some concrete evidence in the record in support of these findings. In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). The Examiner must make requisite findings, based on evidence of record, and also explain the reasoning by which the findings are deemed to support the examiner's conclusion. These showings by the examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). There is no evidence of record to support the statement that the system would be "more efficient" as baldly alleged by the Office. The rejection of claim 18 is improper for this additional reason.

The claims which depend from independent claim 18 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

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Referring to claim 27, Adams and Obeng taken alone and in combination fail to teach or suggest the claimed *another sensor coupled with a supply connection configured to supply one of the components to the mixer* as claimed. The sensors 51, 52, 53 of Adams are coupled with a connection which provides the fluid to the device being processed and not a connection configured to supply one of the components of the fluid. Limitations of claim 27 are not disclosed and the system is allowable for this reason. Applicants request identification of the prior art teachings relied upon if claim 27 is not allowed so Applicants may appropriately respond.

The claims which depend from independent claim 27 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 49, Adams and Obeng taken alone and in combination fail to teach or suggest the claimed sensor configured to output a signal indicative of *accumulation of particulate matter* within the connection. Claim 49 is allowable for at least this reason.

Furthermore, Applicants note that the Office has failed to identify any teachings of the prior art which allegedly disclose the limitations of claim 49. In the event that a rejection of claim 49 is maintained with respect to the prior art, or a new rejection made, Applicants respectfully request identification *in a non-final action* of elements which allegedly correspond to limitations of the claims in accordance with 37 C.F.R. §1.104(c)(2).

In particular, 37 C.F.R. §1.104(c)(2) provides that *the pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified*. Further, 37 C.F.R. §1.104(c)(2) states that the Examiner must cite the best references at their command.

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When a reference is complex or shows or describes inventions other than that claimed by Applicants, the particular teachings relied upon must be designated as nearly as practicable. Applicants respectfully request clarification of the rejections with respect to specific references and specific reference teachings therein pursuant to 37 C.F.R. §1.104(c)(2) in a non-final Action if claim 49 is not found to be allowable.

The claims which depend from independent claim 49 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 58, the prior art teachings of Adams and Obeng taken alone or in combination fail to teach or suggest the claimed *control system configured to control the drain to remove at least a portion of the semiconductor workpiece process fluid from the system responsive to the signal from the sensor*. Limitations of claim 58 are not disclosed and the system is allowable for this reason. Applicants request identification of the prior art teachings relied upon if claim 58 is not allowed so Applicants may appropriately respond.

The claims which depend from independent claim 58 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 63, the prior art teachings of Adams and Obeng taken alone or in combination fail to teach or suggest the claimed *sensor configured to output the signal indicative of turbidity or the control system configured to control mixing of the components of the semiconductor workpiece process fluid responsive to the signal indicative of turbidity*. Limitations of claim 63 are not disclosed and the system is allowable for this reason.

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Applicants request identification of the prior art teachings relied upon if claim 63 is not allowed so Applicants may appropriately respond.

The claims which depend from independent claim 63 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 130, the combination of reference teachings fails to teach or suggest the claimed comparison of the substantially static process fluid with a signature to determine at least one characteristic of the process fluid or the claimed control of the flow rate of the process fluid into the process chamber responsive to the comparison as claimed. Furthermore, these limitations have not been shown to necessarily flow from the teachings of the prior art and any reliance upon inherency is improper for at least this reason. In particular, the Office must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristics necessarily flow from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). MPEP 2112 IV. Limitations of claim 130 are not disclosed and the system is allowable for this reason. Applicants also assert there is insufficient factual basis for combining the references and the rejection is improper for this reason also.

The claims which depend from independent claim 130 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 138, the prior art teachings of Adams and Obeng taken alone or in combination fail to teach or suggest the claimed *control system configured to control the*

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metering device to control a flow rate of the component responsive to the signal indicative of turbidity as positively claimed. Limitations of claim 138 are not disclosed and the system is allowable for this reason. Applicants request identification of the prior art teachings relied upon in a non-final Action if claim 138 is not allowed so Applicants may appropriately respond.

The claims which depend from independent claim 138 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 139, the semiconductor processor system comprises a process fluid system including a *recirculation system recirculating the process fluid to a homogeneous level*. The Office merely alleges on page 8 of the Action that the art teaches a recirculation system with no mention of recirculation of the process fluid to homogeneous level. Applicants have *electronically searched* Obeng and Adams and have failed to uncover any teachings of recirculation of the process fluid to a homogeneous level as claimed. Limitations of claim 139 are not disclosed and the system is allowable for this reason. Applicants request identification of the prior art teachings relied upon in a non-final Action if claim 139 is not allowed so Applicants may appropriately respond.

The claims which depend from independent claim 139 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art. Referring to claim 140, the Office baldly alleges on page 3 of the Action that Adams discloses the claimed *recirculation system recirculating the process fluid to a homogeneous level*. Applicants have *electronically searched* Adams and have failed to uncover any teachings

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of recirculation of the process fluid to a homogeneous level as claimed. Limitations of claim 140 are not disclosed and the system is allowable for this reason. Applicants request identification of the prior art teachings relied upon in a non-final Action if claim 140 is not allowed so Applicants may appropriately respond.

The claims which depend from independent claim 140 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art. Referring to claim 141, the semiconductor processor system comprises a process fluid system comprising a mixer configured to mix components of the process fluid, the sensor configured to *monitor turbidity of the process fluid* and the control system coupled with the sensor and *configured to control mixing of the components responsive to the signal*. Applicants have failed to uncover any teaching of control of the mixing responsive to the signal as claimed in the prior art. The Office in support of the 102 rejection over Obeng and the 103 rejection fails to identify teachings of the above-recited limitations. Applicants have failed to locate any teachings in the prior art of the above-recited limitations. Limitations of claim 141 are not disclosed and the system is allowable for this reason. Applicants request identification of the prior art teachings relied upon in a non-final Action if claim 141 is not allowed so Applicants may appropriately respond.

The claims which depend from independent claim 141 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art. Referring to claim 142, the system comprises a sensor configured to output a signal indicative of one of the components of the process fluid, a control system coupled with the sensor and

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configured to control mixing of the components responsive to the signal and the control system is configured to control the metering device to control the flow rate of the one of the components responsive to the signal. Obeng fails to disclose details of the claimed control of the *mixing of the components responsive to the signal* or the claimed control of the metering device to control the flow rate of the one of the components *responsive to the signal*. Limitations of claim 142 are not disclosed and the system is allowable for this reason. Applicants request identification of the prior art teachings relied upon in a non-final Action if claim 142 is not allowed so Applicants may appropriately respond.

Referring to claim 143, the teachings of Adams and Obeng taken alone and in combination fail to teach or suggest the claimed *another sensor configured to output another signal indicative of one of the components*. The prior art additionally fails to teach or suggest the claimed control system configured to *control mixing of the components responsive to the signal outputted by the first sensor*. Limitations of claim 143 are not disclosed and the system is allowable for this reason. Applicants request identification of the prior art teachings relied upon in a non-final Action if claim 143 is not allowed so Applicants may appropriately respond.

Referring to claim 163, Applicants assert there is insufficient factual basis for combining the references and the rejection is improper for this reason also. The prior art is void of teaching or suggesting the comparison of the substantially static process fluid with a signature. The prior art is also void of teaching or suggesting control of the flow rate of the process fluid into the process chamber responsive to the comparison. Claim 163 is allowable for these compelling reasons.

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The claims which depend from independent claim 163 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

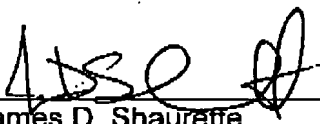
Referring to claim 168, the semiconductor processor system comprises a *control system configured to control the mixing system to mix the plural components using the signal indicative of the process fluid*. These limitations are not disclosed by the prior art and claim 168 is allowable.

Applicants respectfully request allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

Dated: 6/29/07

By: 
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